

Chignik Management Area Pacific Herring Sac Roe Fishery Management Plan, 2005

by

Kenneth A. Bouwens

April 2005

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

Weights and measures (metric)		General		Measures (fisheries)	
centimeter	cm	Alaska Administrative		fork length	FL
deciliter	dL	Code	AAC	mid-eye-to-fork	MEF
gram	g	all commonly accepted		mid-eye-to-tail-fork	METF
hectare	ha	abbreviations	e.g., Mr., Mrs., AM, PM, etc.	standard length	SL
kilogram	kg			total length	TL
kilometer	km	all commonly accepted			
liter	L	professional titles	e.g., Dr., Ph.D., R.N., etc.	Mathematics, statistics	
meter	m			<i>all standard mathematical</i>	
milliliter	mL	at	@	<i>signs, symbols and</i>	
millimeter	mm	compass directions:		<i>abbreviations</i>	
		east	E	alternate hypothesis	H _A
		north	N	base of natural logarithm	<i>e</i>
		south	S	catch per unit effort	CPUE
		west	W	coefficient of variation	CV
		copyright	©	common test statistics	(F, t, χ^2 , etc.)
		corporate suffixes:		confidence interval	CI
		Company	Co.	correlation coefficient	
		Corporation	Corp.	(multiple)	R
		Incorporated	Inc.	correlation coefficient	
		Limited	Ltd.	(simple)	r
		District of Columbia	D.C.	covariance	cov
		et alii (and others)	et al.	degree (angular)	°
		et cetera (and so forth)	etc.	degrees of freedom	df
		exempli gratia		expected value	<i>E</i>
		(for example)	e.g.	greater than	>
		Federal Information		greater than or equal to	≥
		Code	FIC	harvest per unit effort	HPUE
		id est (that is)	i.e.	less than	<
		latitude or longitude	lat. or long.	less than or equal to	≤
		monetary symbols		logarithm (natural)	ln
		(U.S.)	\$, ¢	logarithm (base 10)	log
		months (tables and		logarithm (specify base)	log ₂ , etc.
		figures): first three		minute (angular)	'
		letters	Jan,...,Dec	not significant	NS
		registered trademark	®	null hypothesis	H ₀
		trademark	™	percent	%
		United States		probability	P
		(adjective)	U.S.	probability of a type I error	
		United States of		(rejection of the null	
		America (noun)	USA	hypothesis when true)	α
		U.S.C.	United States	probability of a type II error	
			Code	(acceptance of the null	
		U.S. state	use two-letter	hypothesis when false)	β
			abbreviations	second (angular)	"
			(e.g., AK, WA)	standard deviation	SD
				standard error	SE
				variance	
				population	Var
				sample	var
Weights and measures (English)					
cubic feet per second	ft ³ /s				
foot	ft				
gallon	gal				
inch	in				
mile	mi				
nautical mile	nmi				
ounce	oz				
pound	lb				
quart	qt				
yard	yd				
Time and temperature					
day	d				
degrees Celsius	°C				
degrees Fahrenheit	°F				
degrees kelvin	K				
hour	h				
minute	min				
second	s				
Physics and chemistry					
all atomic symbols					
alternating current	AC				
ampere	A				
calorie	cal				
direct current	DC				
hertz	Hz				
horsepower	hp				
hydrogen ion activity	pH				
(negative log of)					
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

FISHERY MANAGEMENT REPORT NO. 05-19

**CHIGNIK MANAGEMENT AREA PACIFIC HERRING SAC ROE
FISHERY MANAGEMENT PLAN, 2005**

by

Kenneth A. Bouwens,
Division of Commercial Fisheries, Kodiak

Alaska Department of Fish and Game
Division of Sport Fish, Research and Technical Services
333 Raspberry Road, Anchorage, Alaska, 99518-1599

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*Kenneth A. Bouwens,
Alaska Department of Fish and Game, Division of Commercial Fisheries,
211 Mission Road, Kodiak, Alaska 99615, USA*

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ABSTRACT

Pacific herring *Clupea pallasii* sac roe fisheries have occurred in bays and marine waters within the Chignik Management Area (CMA) intermittently since 1980. This document describes how the 2005 fishery will be managed in the CMA, the requirements for the fishing industry to participate in the fishery, and how to contact and relay information to the Alaska Department of Fish and Game. Historical harvests for the CMA, as well as the 2005 season harvest projections, are presented. This document is intended as a guide for commercial herring harvesters, buyers, and tender operators. Information regarding specific commercial herring fishing periods must be received from the department prior to any fishing activity. Due to low herring biomass, no commercial herring fishery is anticipated to occur in the CMA in 2005.

Key words: Pacific herring, *Clupea pallasii*, Chignik, sac roe, management plan.

INTRODUCTION

DESCRIPTION OF AREA

The Chignik Management Area (CMA) includes all waters of Alaska on the south side of the Alaska Peninsula bounded by a line extending 135° southeast for three miles from a point near Kilokak Rocks at 57° 10.34' N lat., 156° 20.22' W long. (the longitude of the southern entrance to Imuya Bay), then due south, and a line extending 135° southeast from Kupreanof Point at 55° 33.98' N lat., 159° 35.88' W long (5 AAC 27.550; Figure 1; ADF&G 2005). All geographic coordinates are defined using the global positioning system (GPS).

The CMA is divided into five fishing districts that define geographical areas used in managing the Pacific herring *Clupea pallasii* sac roe commercial fishery (Figure 2). Each district is further divided into smaller areas called sections. The Alaska Department of Fish and Game determines which areas, if any, will be open to commercial fishing and establishes guideline harvest levels (GHLs) for each of these areas based on observed herring biomass.

HISTORY OF THE CHIGNIK MANAGEMENT AREA PACIFIC HERRING FISHERY

The Alaska Peninsula Pacific herring fishery began in the early 1900s with the first recorded landing in 1906. Reported CMA harvests were combined with Alaska Peninsula harvests during the early 1900s and were categorized as “Southwestern Alaska” harvests. Commercial herring harvests did not exceed 500 tons per year prior to the 1930s.

A small herring saltery was operated in the Chignik Bay District during the early 1930s. The CMA herring fishery ceased in the late 1930s and did not resume until 1980 when a herring sac roe fishery was initiated. From 1980 to 2004, the annual CMA herring sac roe harvests ranged from 0 to 587 tons, with the largest harvests occurring in 1980, 1981, and 1982 (Table 1). There has been no commercial herring harvest in the CMA since 1996, and observed spawning biomass have been relatively low in recent years.

REPORTING REQUIREMENTS

CFEC PERMIT HOLDERS

All Commercial Fisheries Entry Commission (CFEC) permit holders desiring to harvest herring during the sac roe season must register with the department prior to beginning herring fishing activities. This can be accomplished either by single side band radio (SSB), telephone, fax, or E-mail (Table 2). After approximately May 5, the Chignik ADF&G office is staffed between 8:00 AM and 4:30 PM. If you are unable to contact ADF&G staff in Chignik, ADF&G staff in Kodiak or Sand Point should be contacted.

PROCESSORS

Each buyer shall identify all vessels to be employed in transporting or processing herring and must register those vessels with an ADF&G representative in Chignik or Kodiak before transporting or processing herring. This can be accomplished either by SSB, telephone, fax, or E-mail (Table 2). Further, all processors are required to submit daily reports of all herring purchased from commercial fishermen, or other processing records as specified by a local representative of the department. All tenders and processors must submit fish tickets to ADF&G, in Chignik before departing the CMA or by mail to ADF&G in Chignik no later than 10 days after termination of buying operations in the CMA, unless other arrangements have been made with a local representative of the department.

2005 MANAGEMENT STRATEGY

GUIDELINE HARVEST LEVELS

The ADF&G manages the CMA by using a harvest strategy of a 0-20% exploitation rate of the spawning biomass documented in individual bays. The actual 2005 guideline harvest levels (GHLs) will depend upon the department's assessment of the herring biomass, the biological condition of the stocks, the amount of potential effort, and the availability of local processing. Herring biomass is not expected to be sufficient for a herring sac roe fishery in 2005.

FISHING SEASON

The Chignik herring sac roe season extends from April 15 through June 30. Herring may be taken only during fishing periods established by emergency order.

AIRCRAFT

There are no aircraft restrictions in the Chignik herring sac roe fishery. Spotter pilots are encouraged to contact ADF&G in Chignik on a regular basis. Information about biomass or spawning events is needed for the management of the fishery. All reports concerning biomass and or spawning events are confidential.

GEAR

Herring may be taken only by purse seines, which may not be more than 1,000 meshes in depth or more than 100 fathoms in length (5 AAC 27.565-575; ADF&G 2005).

CLOSED WATERS

Herring may not be taken commercially in closed waters as described in 5 AAC 15.350. Additionally, from June 12 through June 30, herring may not be taken in any waters closed to commercial salmon fishing, as described in 5 AAC 27.580 or as described by emergency order (ADF&G 2005).

REFERENCES CITED

Alaska Department of Fish and Game (ADF&G). 2005. Commercial Herring Fishing Regulations, 2005-2006 edition, Commercial Fisheries Division, Juneau.

TABLES AND FIGURES

Table 1.—Commercial herring harvest in the Chignik Management Area, by year, 1980 to 2004.

Year	Harvest (tons)
1980	587
1981	441
1982	190
1983	88
1984	66
1985	0
1986	11
1987	75
1988	59
1989	66
1990	0
1991	0
1992	0
1993	0
1994	0
1995	77
1996	6
1997	0
1998	0
1999	0
2000	0
2001	0
2002	0
2003	0
2004	0

Table 2.—Department contact information.

Location	Phone	Fax	VHF	SSB	Email
Chignik Weir	845-2243	845-2235	Channel 6	3230 KhZ (WON 29)	kenneth_bouwens@fishgame.state.ak.us.
Kodiak Regional Office	486-1806	486-1841	—	3230 KhZ (WON 29)	kenneth_bouwens@fishgame.state.ak.us.
Sand Point	383-2066	—	—	3230 KhZ (WON 29)	—

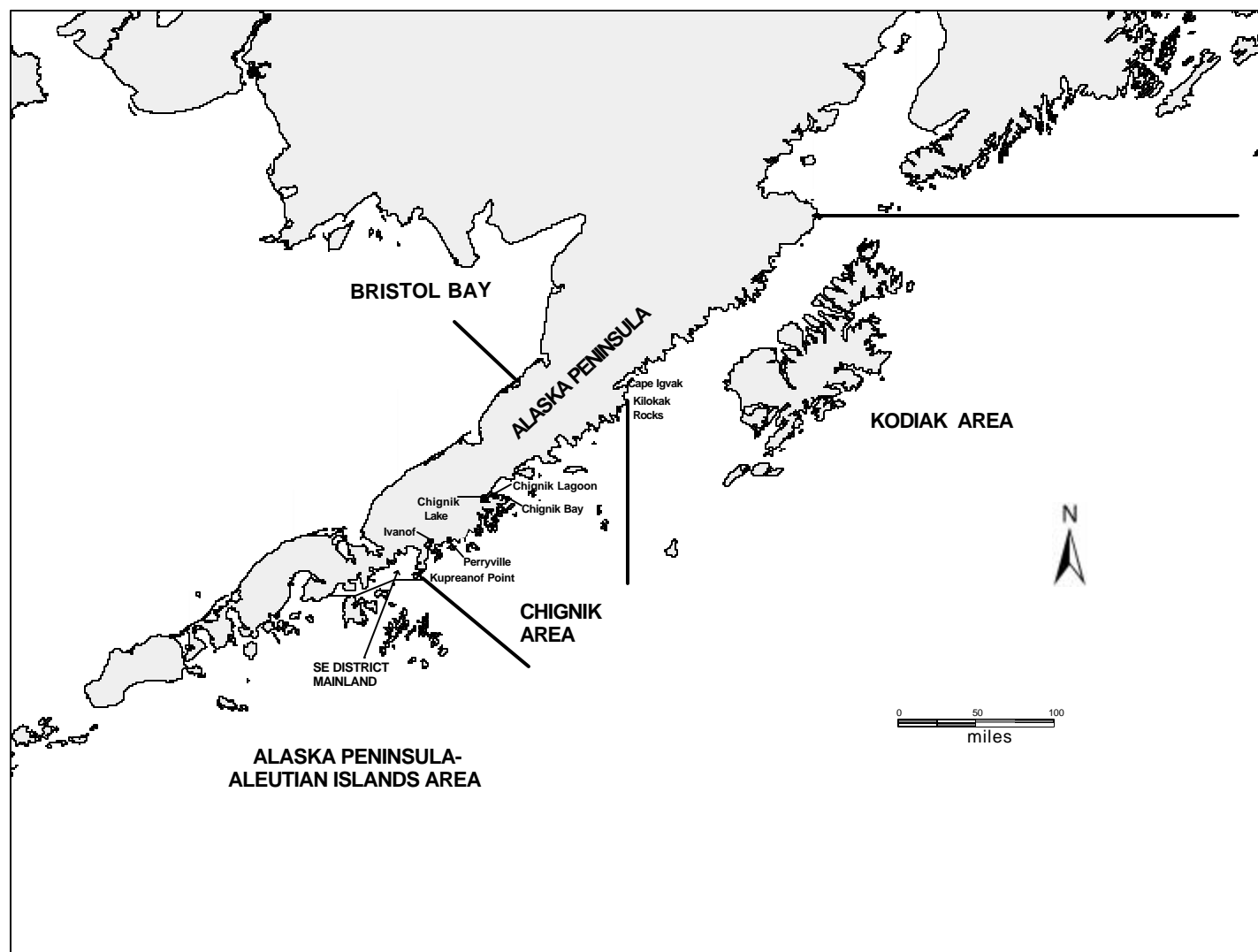


Figure 1.—Map of the Alaska Peninsula illustrating the locations of the Chignik, Kodiak, and Alaska Peninsula/Aleutian Islands Management Areas.

